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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/814,403	03/22/2001	Yihua Chang	11302-1190 (44040-256047)	3830
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EXAMINER
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WILSON, DONALD R

ART UNIT	PAPER NUMBER
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1713

*12*

DATE MAILED: 01/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/814,403

Applicant(s)

CHANG ET AL.

Examiner

D. R. Wilson

Art Unit

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-- Th MAILING DATE of this communication appears on th cover sh et with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1)  Responsive to communication(s) filed on 25 November 2002.
- 2a)  This action is FINAL.
- 2b)  This action is non-final.
- 3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4)  Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) 6-9 is/are withdrawn from consideration.
- 5)  Claim(s) \_\_\_\_\_ is/are allowed.
- 6)  Claim(s) 1-5 is/are rejected.
- 7)  Claim(s) \_\_\_\_\_ is/are objected to.
- 8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9)  The specification is objected to by the Examiner.
- 10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11)  The proposed drawing correction filed on \_\_\_\_\_ is: a)  approved b)  disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12)  The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14)  Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a)  The translation of the foreign language provisional application has been received.
- 15)  Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1)  Notice of References Cited (PTO-892)
- 2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3)  Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4, 5.
- 4)  Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5)  Notice of Informal Patent Application (PTO-152)
- 6)  Other:

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**DETAILED ACTION**

**Information Disclosure Statements**

1. Applicant has not responded to the previous requests to identify those references most closely related to the instantly claimed invention to which the Examiner should direct his primary attention, and applicant is again requested to respond. As previously pointed out, the large number of references submitted has obscured the importance of any individual reference.
2. Reference #427 of Paper No. 4 has been lined out, as it wasn't found in the boxes of references provided.

**Response to Restriction Requirement**

3. Applicant's election without traverse of the inventions of Group I, Claims 1-5, in Paper No. 7, and the species of,
  - a. a copolymer of [2-(methacryloyloxy)ethyl]trimethylammonium chloride as the triggerable polymer, and
  - b. ethylene/vinyl acetate copolymer as the co-binder polymer,in Paper No. 11, is acknowledged. Although (a) is not a single ultimate disclosed specie of the triggerable polymer, the Examiner will accept the election.
4. Claims 5-9 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention. Claims 1-5 are under consideration.

**Claim Rejections - 35 USC § 112, First Paragraph**

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
6. ~~Claims 1-5 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for:~~
  - a. ~~triggerable cationic or ion-specific cationic polymers which contain at least a further monomeric unit in addition to a cationic monomeric unit (Claims 1-5), does not~~

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**reasonably provide enablement for triggerable cationic or ion-specific cationic polymers which contain only cationic monomeric units,**

**b. polymer formulations wherein the co-binder polymer is in a discontinuous phase in the cationic polymer (Claims 1-5), does not reasonably provide enablement for polymer formulations wherein the cationic polymer is dispersed in the co-binder polymer, and**

**c. polymer formulations which are dispersible in water containing up to about 200 ppm of one or more multivalent ions (Claim 4), does not reasonably provide enablement for polymer formulations which are soluble in water containing up to about 200 ppm of one or more multivalent ions.**

The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims.

7. In regards to (a) the specification clearly teaches that the cationic polymers contain other monomeric units, i.e., they are copolymers or interpolymers (e.g., specification p. 9, lines 13-19. p.14, lines 19-22). No examples or guidance on how to make homopolymers of cationic monomers which would be effective in the instant specification. In regards to (b), the specification teaches that the triggerable polymer is primarily the continuous phase, and the co-binder polymer the discontinuous phase (specification, page 19, lines 25-30). However, it not seen how the triggerable polymer could be triggered if it wasn't in the continuous phase, and no examples are shown where an effective composition is not the continuous phase. In regards to (c), as the co-binder polymers appear to be largely water insoluble materials it would not be expected that they would dissolve in water containing up to about 200 ppm of one or more multivalent ions. The claims are clearly not commensurate in scope with what is enabled, and undue experimentation would be required to identify compositions meeting the scope of what is claimed.

#### **Claim Rejections - 35 USC § 112, Second Paragraph**

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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9. **Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

10. Claims 1-5 are indefinite because what the triggerable effect is, and the metes and bounds of what is included in a “triggerable cationic polymer”, cannot be told. While applicant gives a general description of what might be included in what is considered to be “triggerable”, there is no clear distinction of what meets the conditions and what doesn't.

There are two separate requirements set forth in the § 112, second paragraph::

(A) the claims must set forth the subject matter that applicants regard as their invention; and

(B) the claims must particularly point out and distinctly define the metes and bounds of the subject matter that will be protected by the patent grant.

See M.P.E.P. § 2171.

Applicant is also reminded that to the degree that the specification defines what is meant by triggerable, such limitations are not stated in the claims. It is the claims that define the claimed invention, and it is claims, not specifications that are anticipated or unpatentable.

*Constant v. Advanced Micro-Devices Inc.*, 7 USPQ2d 1064. Claims may be interpreted in the light of the specification for the purpose of defining a given term under 35 USC 112 but it must be remembered that during patent examination the pending claims must be interpreted as broadly as their terms reasonably allow. *In re Zletz*, 13 USPQ 1320. Generally, one does not read into claims in pending applications limitations from the specification. *In re Winkhaus*, 188 USPQ 129; *In re Prater*, 162 USPQ 541.

11. Claim 2 is further indefinite because the metes and bounds of an “ion-specific cationic polymer” cannot be determined.

12. Claim 3 is indefinite because the polymer does not comprise monomers. This rejection could be overcome by reciting for example that the polymer comprises monomeric units as opposed to the monomers, or that the polymer is a copolymer of said monomers.

13. Claims 4 and 5 are further indefinite because it is unclear what is included in “divalent metal salts” capable of forming a complex anion. If applicant means capable of forming a complex anion in water, then apparently  $\text{CaCl}_2$  and  $\text{MgCl}_2$ , which are recited in dependent claims, would not be included (see specification page 16, lines 5-8). If the conditions are unlimited as to the conditions under which a

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complex ion can be formed, perhaps most salts could form complex ions in the presence for instance of various ligands.

14. Claim 5 is further indefinite because the metes and bounds of hard or soft water cannot be determined.

**Claim Rejections - 35 USC § 102(b)/§ 103(a)**

15. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

17. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

18. **Claims 1-3 and 5 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Larson '007, or Larson '841.**

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19. Larson'007 and Larson'841 disclose compositions comprising thermoplastic resin particles and a charge director comprised of a quaternary ammonium copolymer (abstracts). The charge director is present at 0.5 to 100 percent based upon the total solids (col. 13, lines 22-29, and col. 13, lines 43-53, respectively). Suitable charge directors are acrylate copolymers of 2-trialkylammoniummethyl (meth)acrylates and 2-trimethylammoniummethyl methacrylate chloride/ethylhexyl methacrylate copolymers are specifically disclosed (col. 8, lines 12-18, col. 7, lines 47-53, respectively). The thermoplastic resin particle is present in an amount of 40 to 99 percent of the composition, and suitable examples include ethylene/vinyl acetate copolymers (col. 14, lines 27-36, and col. 14, lines 39-49, respectively). If the quaternary ammonium copolymer is triggerable in the instant invention, then it is also triggerable in the inventions of Larson'007 and Larson'841. As the composition is a liquid developer it is also seen to be dispersible in other liquid media such as soft or hard water.

It has been held that where applicant claims a composition in terms of function, property or characteristic where said function is not explicitly shown by the reference and where the examiner has explained why the function, property or characteristic is considered inherent in the prior art, it is appropriate for the examiner to make a rejection under both the applicable section of 35 USC 102 and 35 USC 103 such that the burden is placed upon the applicant to provide clear evidence that the respective compositions do in fact differ. *In re Best*, 195 USPQ 430, 433 (CCPA 1977); *In re Fitzgerald et al.*, 205 USPQ 594, 596 (CCPA 1980).

#### ***Art of Interest/Technological Background***

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Larson'672 and Spiewak'449 contain teachings similar to those of Larson'007 and Larson'841. Gray discloses blends of other species of the invention. Gray, contains blends of cationic copolymers. EP'284 and WO'698, were cited in the international search report. Each of these references could be used in the future to reject non-elected species of the invention.

#### ***Future Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to D. R. Wilson whose telephone number is 703-308-2398.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on 703-308-2450. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-5408 for regular communications and 703-305-3599 for After Final communications. The unofficial direct fax phone number to the Examiner's desk is 703-872-9029.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 308-2351.

A handwritten signature in black ink, appearing to read 'D.R. Wilson', with a long horizontal flourish extending to the right.

D. R. Wilson  
Primary Examiner  
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